

**ABSTRACT****09/126622**

Opportunistic image quality improvement in a digital camera. In a digital camera having a picture memory of fixed size for storing a predetermined number of pictures, raw image data is compressed to form primary and auxiliary data sets. The primary data set allows the image to be reconstructed at a first quality level. The primary and auxiliary data sets combined allow the reconstruction of the image at a higher quality level. As images are taken and processed, if sufficient storage space exists in the picture memory, both primary and auxiliary data sets are stored. This continues until the memory is full of primary and auxiliary data sets. Once the memory is full, as more images are taken and stored, the space used by auxiliary data sets is reclaimed for use by primary data sets, and the auxiliary data sets are not stored.

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